

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

21. (currently amended) A transgenic non-human animal comprising, in a germ or somatic cell, a nucleic acid ~~characteristic of~~ encoding human amyloid precursor protein including the nucleotides encoding codon 670 and 671 of human amyloid precursor protein 770, or encoding the codons corresponding to these in other isoforms of APP, operably linked to a promoter, wherein the nucleic acid encodes an amino acid other than lysine at codon 670 and/or an amino acid other than methionine at codon 671 and, wherein the animal expresses a human amyloid precursor protein or fragment thereof which ~~encodes~~ has an amino acid other than lysine at codon 670 and/or an amino acid other than methionine at codon 671.

22. (currently amended) The animal of claim 21, wherein ~~expression of the nucleic acid results in neuropathological characteristics of Alzheimer's disease in the animal~~ the animal is useful for the study of the biochemistry of amyloid precursor protein (APP) and β -amyloid metabolism.

23. (currently amended) A transgenic non-human animal comprising, in a germ or somatic cell, a nucleic acid ~~characteristic of~~ encoding human amyloid precursor protein including the nucleotides encoding codon 670, 671 and 717 of human amyloid precursor protein 770, or encoding the codons corresponding to these in other isoforms of APP, operably linked to a promoter, wherein the nucleic acid encodes an amino acid other than lysine at codon 670 and/or an amino acid other than methionine at codon 671 and an amino acid other than valine at codon 717 and, wherein the animal expresses a human amyloid precursor protein or fragment thereof which ~~encodes~~ has an amino acid other than lysine at codon 670 and/or an amino acid other than methionine at codon 671 and an amino acid other than valine at codon 717.

24. (currently amended) The animal of claim 23, wherein ~~expression of the nucleic acid results in neuropathological characteristics of Alzheimer's disease in the animal~~ the animal is useful for the study of the biochemistry of amyloid precursor protein (APP) and β -amyloid metabolism.

25. (currently amended) An isolated cell comprising a nucleic acid ~~characteristic of~~ encoding human amyloid precursor protein including the nucleotides encoding codon 670 and 671 of human amyloid precursor protein 770, or encoding the codons corresponding to these in other isoforms of APP, operably linked to a promoter, wherein the nucleic acid encodes an amino acid other than lysine at codon 670 and/or an amino acid other than methionine at codon 671 and, wherein the cell expresses a human amyloid precursor protein or fragment thereof which ~~encodes~~ has an amino acid other than lysine at codon 670 and/or an amino acid other than methionine at codon 671.

26. (previously presented) The cell of claim 25, wherein the cell is immortalized.

27. (currently amended) An isolated cell comprising a nucleic acid ~~characteristic of~~ encoding human amyloid precursor protein including the nucleotides encoding codon 670, 671 and 717 of human amyloid precursor protein 770, or encoding the codons corresponding to these in other isoforms of APP, operably linked to a promoter, wherein the nucleic acid encodes an amino acid other than lysine at codon 670 and/or an amino acid other than methionine at codon 671 and an amino acid other than valine at codon 717 and the cell expresses a human amyloid precursor protein or fragment thereof which ~~encodes~~ has an amino acid other than lysine at codon 670 and/or an amino acid other than methionine at codon 671 and an amino acid other than valine at codon 717.

28. (previously presented) The cell of claim 27, wherein the cell is immortalized.

29. (previously presented) A method of screening for an agent for treating Alzheimer's disease comprising contacting the animal of claim 22 with the agent and monitoring the expression, processing or deposition of amyloid precursor protein or fragments thereof.

30. (previously presented) A method of screening for an agent for treating Alzheimer's disease comprising contacting the animal of claim 24 with the agent and monitoring the expression, processing or deposition of amyloid precursor protein or fragments thereof.

31. (previously presented) A method of screening for an agent for treating Alzheimer's disease comprising contacting the cell of claim 25 with the agent and monitoring the expression or processing of amyloid precursor protein or fragments thereof.

32. (previously presented) A method of screening for an agent for treating Alzheimer's disease comprising contacting the cell of claim 27 with the agent and monitoring the expression or processing of amyloid precursor protein or fragments thereof.